# Parvati Jayakumar

 Seattle, WA | Open to relocation across the US | Eligible to work full-time starting May 12, 2025

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 in parvati-jayakumar
 parvatijay2901

### **EDUCATION**

### University of Washington, Seattle

Master of Science in **Data Science** 

Sep 2023 - Mar 2025

GPA: **3.94/4** 

# Indian Institute of Information Technology Dharwad

Bachelor of Technology in Electronics and Communication Engineering

Aug 2018 - Aug 2022 GPA: 4/4

- Institute Gold Medal and Department Gold Medal for Academic Excellence
- Made a TENCON 2022 IEEE Region 10 Conference publication.

# **EXPERIENCE**

#### Graduate Research Assistant

Sep 2024 - Mar 2025

UW Scientific Software Engineering Center, eScience Institute

Seattle, WA

- Integrated DeepEval into the **OLMo2** Retrieval-Augmented Generation (**RAG**) pipeline, achieving a test score rating of **8.3/10**, ensuring reliability of search results in support of Vera C. Rubin Observatory research.
- Engineered a fully automated financial disclosure system using **Apps Script** and **Power Automate**, processing 100% of disclosures within 24 hours for the UW Office of Research team.
- Pioneered the user interface development of a **Flutter app** for the <u>Post-Disaster Communications</u> project, enabling field teams to achieve **80%**+ faster data transmission speeds during emergencies.

### **Data Science Intern**

Jun 2024 - Sep 2024

Pearson Packaging Systems

Spokane, WA

- Engineered a Power BI dashboard for the Inventory Department that enabled reporting; improved on-time delivery rates to 95% exceeding company targets and cut material costs by 50%.
- Spearheaded the **Data Warehouse** pilot project, establishing a functional instance and creating a detailed **Microsoft Fabric** implementation plan that aims to reduce potential deployment delays by 17%.

# Data Scientist (R&D)

Nov 2021 - Jun 2023

MiiCare

Remote (London, UK)

- Developed and maintained streamlined reports on **health data for 300+** seniors and disabled individuals, enabling rapid, data-driven assessments for early detection of critical mental and physical health concerns.
- Led the development of MiiVoice, a voice-based mental health prediction system using **speech processing** and contributed to **NLP projects**, increasing customer engagement by **29**% (2021 Dec 2023 Jun).
- Developed a ML model to classify **Acoustic Gait patterns** using footstep sounds and achieved  $\leq 0.71\%$  relative error compared to IMU and video-based systems (tested on 10 users). (BSN 2023), (arXiv).

#### **PROJECTS**

# InsurIQ: Health Insurance Analytics & RAG Dashboard

Feb 2025 - (Present)

GitHub-reference (Personal Project)

Python, Data Analytics, NLP

• Develop an interactive panel-based dashboard to visualize **health insurance data**, integrated with a **RAG** module to accelerate the processing of **45**+ insurance PDF documents to extract key insights for analysis.

# Biomarker Analysis in VAP Patients

Jan 2025 - Mar 2025

GitHub-reference (Masters Capstone Project)

Python, Statistics, ML

• Implemented a LCA clustering algorithm to analyze biomarker expression patterns in VAP patients, categorizing 466 individuals into distinct risk groups for targeted intervention strategies; (2 publications in progress).

#### **SKILLS**

Python(Pandas, NumPy, Matplotlib, Plotly, Seaborn, scikit-learn, TensorFlow, PyTorch), R, SQL, MATLAB, C/C++, Power BI, Tableau, SQLite, MySQL, PostgreSQL, Qdrant, MongoDB, SQL Server, Microsoft Fabric, Azure (Data Warehousing components, Machine Learning), AWS, Git, FastAPI, Streamlit, Docker, Kubernetes, Agile methodology, Data Analysis, Data Science, Data Engineering, Natural Language Processing, Machine Learning